Canadian Geospatial Data Infrastructure Access Services

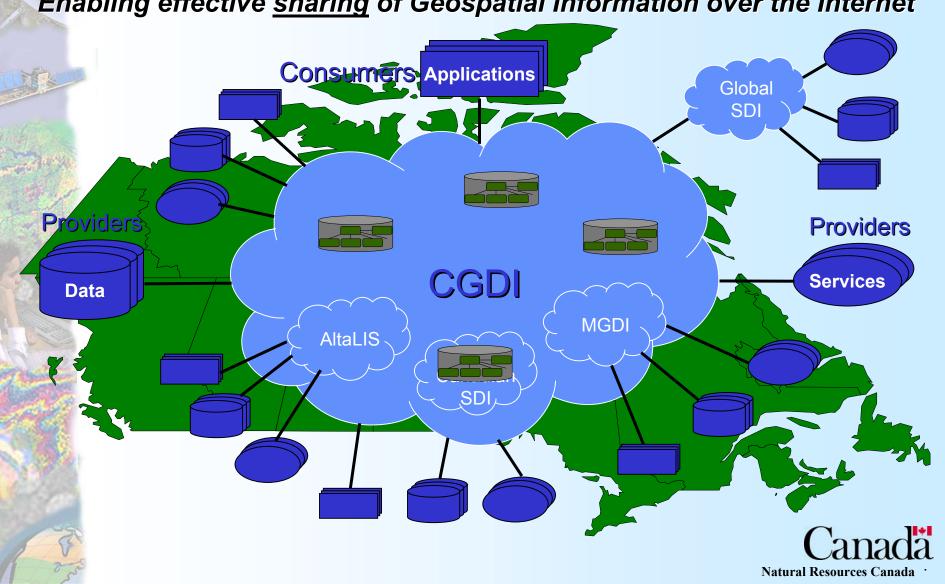
OGC EO SIG Meeting T. Fisher June 2001





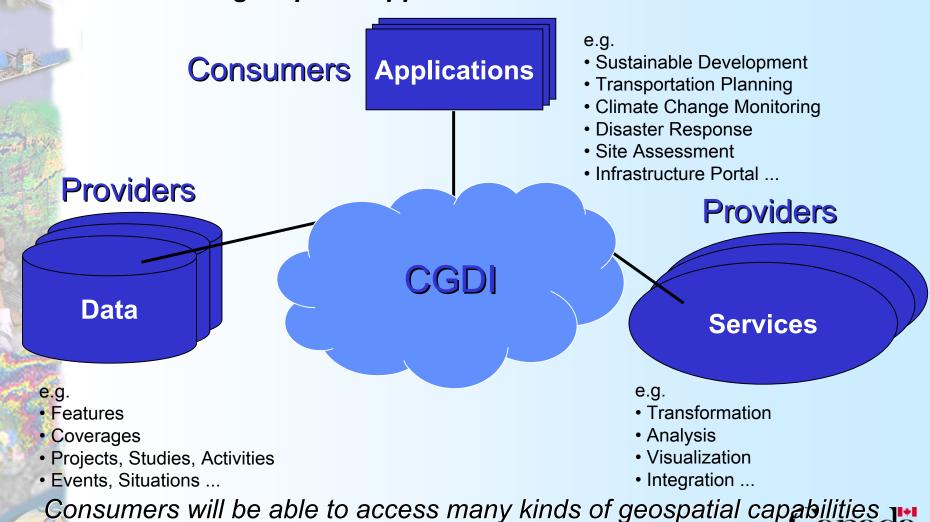
CGDI Vision

Enabling effective sharing of Geospatial Information over the Internet



Geospatial Applications, Data and Services

CGDI will enable geospatial applications with online data and services



Natural Resources Canada

Autonomous Interdependent

Organizations
CGB will enable organizations to remain autonomous while working together

Autonomous organizations ...

Federal Govt **Agencies** **Provincial** Govt Agencies

... that are interdependent

Academia

CGDI

Municipal Govt **Agencies**

Others

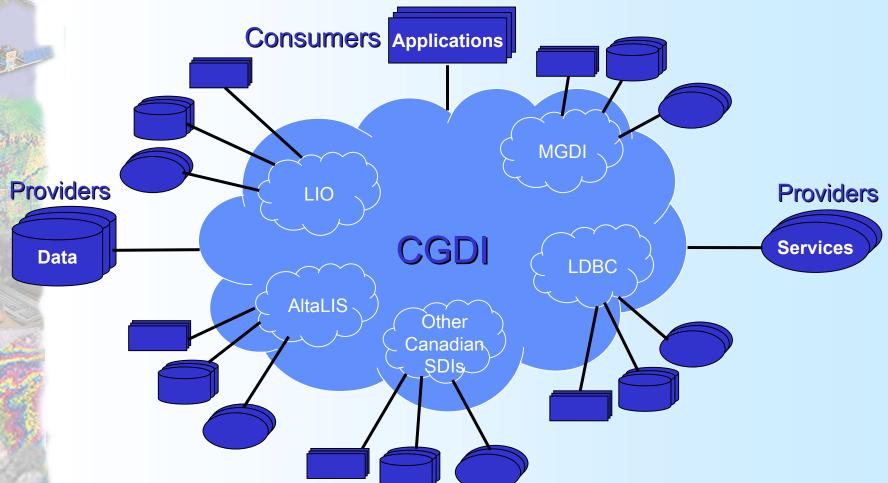
Private Companies **Utilities**





Partnerships throughout Canada

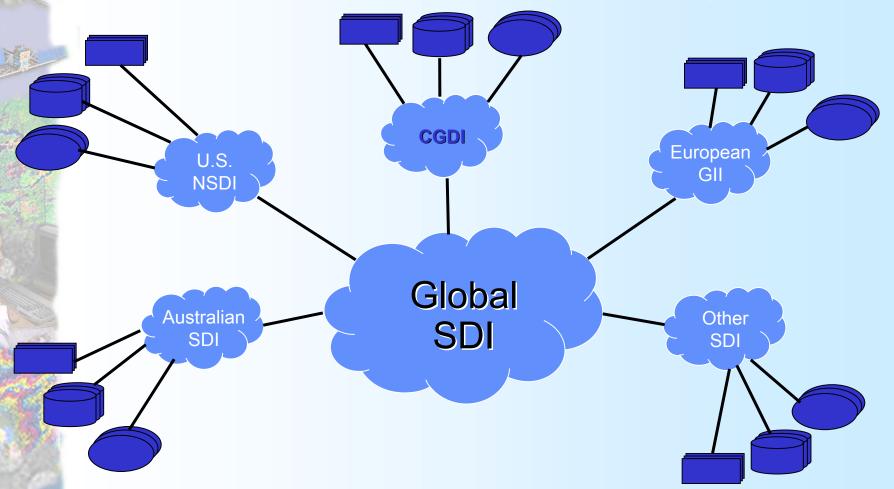
CGDI will facilitate partnerships to build a Canadian Infrastructure



A greater range of geospatial information will be available to Consumers

Global Participation

CGDI will join with other National SDIs to form a global SDI

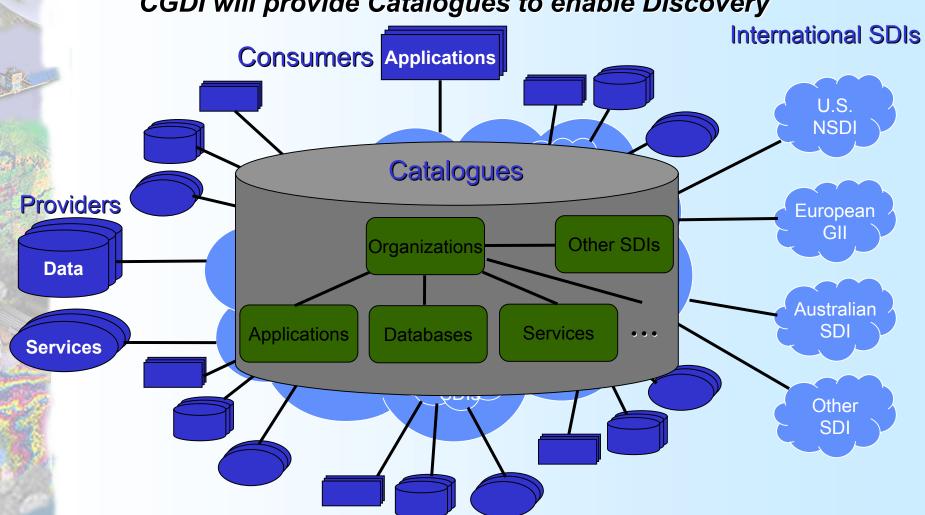


Canadian information providers will have access to global markets

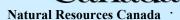
Natural Resources Canada

Catalogues for Discovery

CGDI will provide Catalogues to enable Discovery

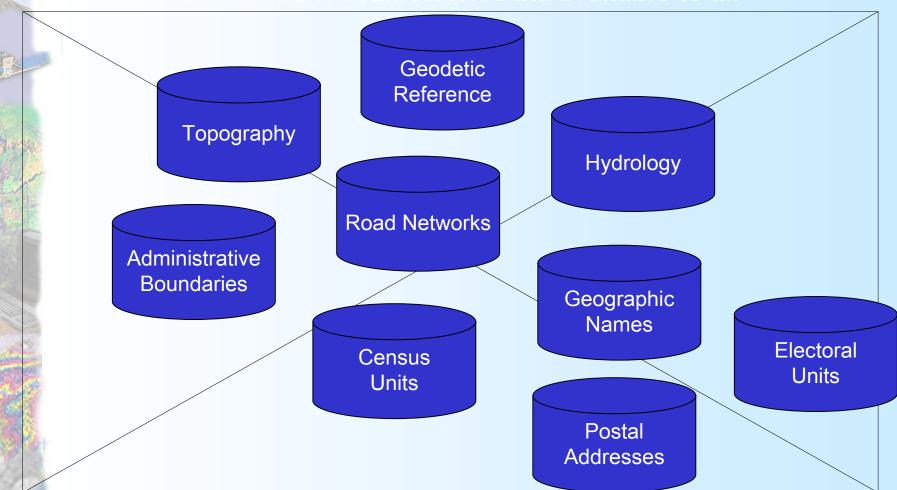


Catalogues will make geospatial information easier to fing



Common Geospatial Framework

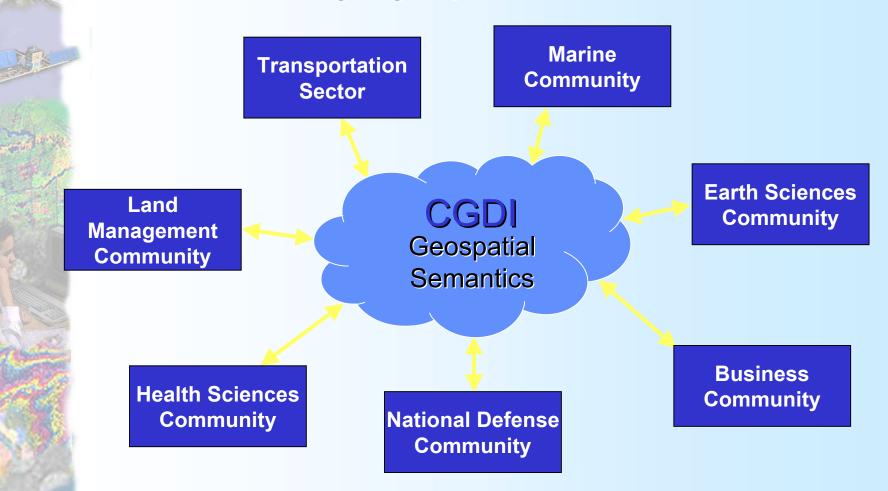
Data CGDI will make Framework Data available to all



Online Framework Data will make discovery and spatial integration easier

Shared Geospatial Semantics

CGDI will facilitate sharing of geospatial semantics across communities



Shared semantics will enable geospatial data to be more easily integrated

Adherence to Common Open

Standards CGDI will adhere to common open information standards

Information Standards

International Standards Organization

Open GIS Consortium

Others

gniniteb

Common Data Types

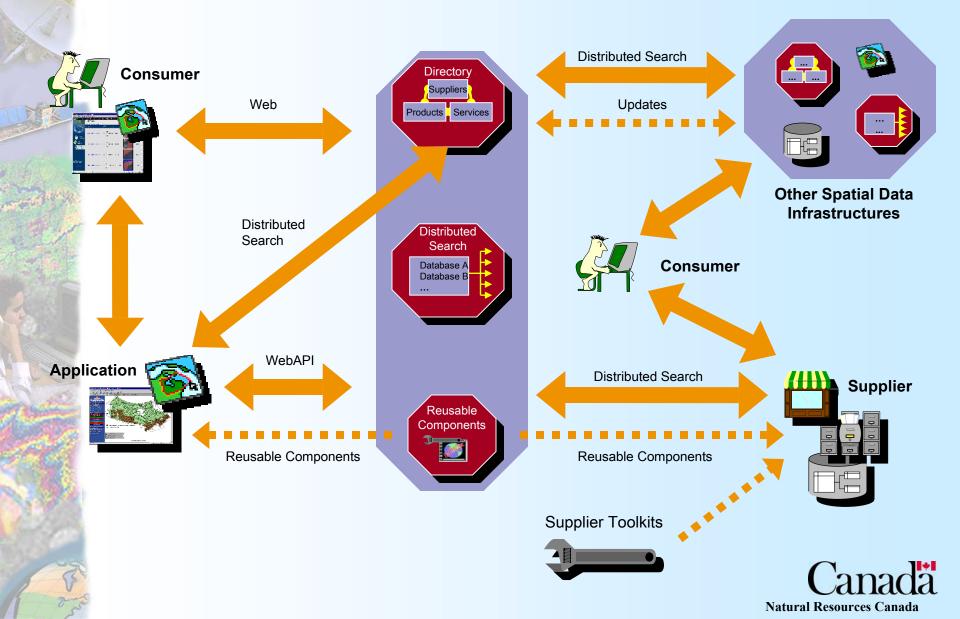
- Features
- Coverages
- Spatial Reference Systems
- Projects, Studies, Activities
- Events, Situations ...

Common Interfaces

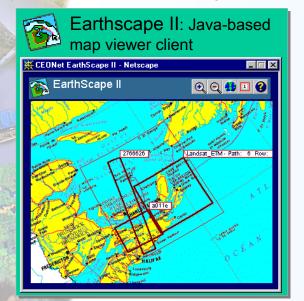
- Discovery
- Access
- Update
- Transformation
- Visualization ...

Standards adherence will result in interoperable, marketable components

Discovery/Access Components

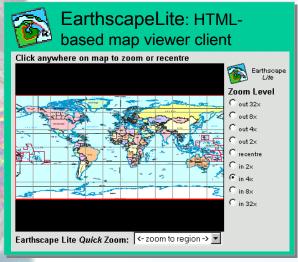


Freely Re-usable Components

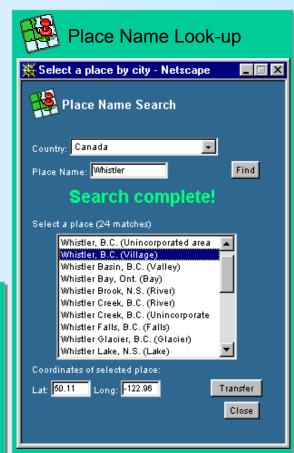


RUCs

provide for geospatial coordinate specification and map footprint display



Postal Code Look-up	
💥 Postal Code Server - Netscape	_ 🗆 ×
Canadian Postal Code	Find
Postal code region: Ottawa: Vanier (ON)	
Coordinates of selected postal code:	
Lat: 45.44 Long: -75.63	Transfer Close





Content and Usage

- 1600+ Organisations registered in the directory.
- 8300+ Data collections described in the directory.
- 255+ online search connections to remote, distributed databases/inventories.
- Operational since May '97 with frequent system releases (every 3 or 4 months).
- 100K use sessions per month.





EO Activities

- Catalogs of all EO data in Canadian archive
 - RADARSAT, Landsat (1-5,7), SPOT (1-4), AVHRR,
 ERS, SEASAT
- Access to USGS EROS Data Center EO catalogs
- Access to NASA EO catalogs





Some EO Discovery Requirements

- Near real time access to catalog and browse data
- Multi-mission simultaneous catalog searching
- Content/feature based discovery
- Subscription services





EO Activities

- 5+ WMS compliant servers, will grow rapidly
- WMS server at NRCan/CCRS has many geomatics layers
 - VMAP Level 0, Canada Land Inventory (6 layers), AVHRR Land Cover,
 - Plan to load Landsat 7 coverage of Canada
- Hosting/integrating Compusult Service Catalog



Some EO Visualization Requirements

- Seamless geographic access to multimission RS data
- Temporal access to data
- Ability to visualize EO data with other geomatics data
- Hyperspectral support
- Fast browsing/roaming at different resolutions
- Real time reformatting/reprojection



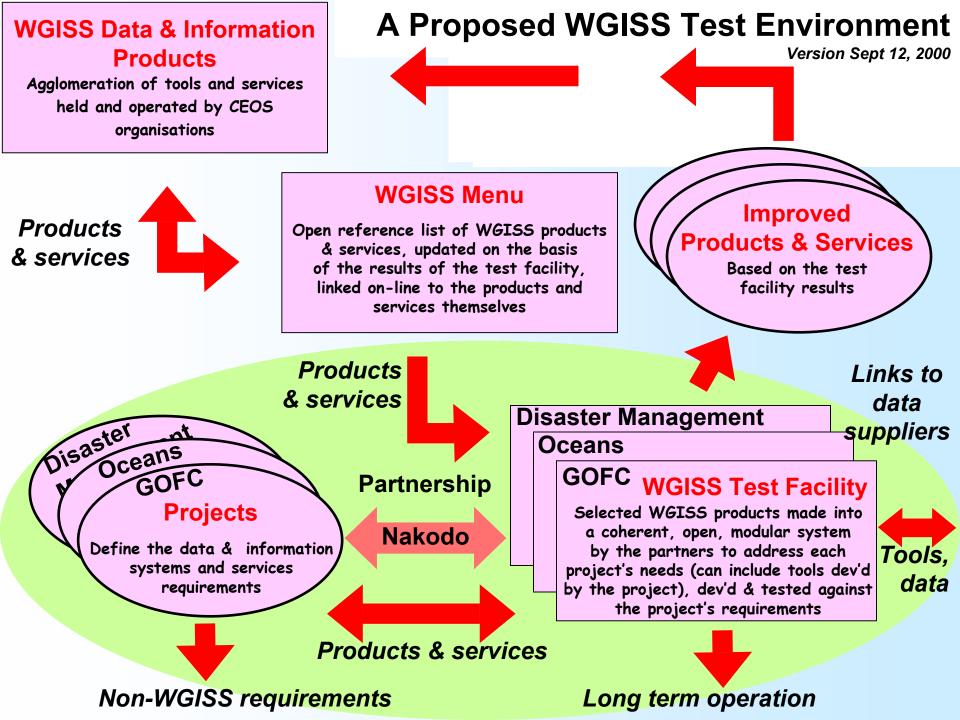


Some EO Processing Services Requirements

- Chaining of processing services
- Compression/data management schemes to support near real time processing
- Online ordering/E-Commerce/Online Delivery







That's It!

http://geoconnections.org

